

**Notice of Allowability**

Application No.

10/840,239

Applicant(s)

MICHAELIS, PAUL ROLLER

Examiner

Melur Ramakrishnaiah

Art Unit

2614

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3-25-2004.
2. ☒ The allowed claim(s) is/are 1-42.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 5-24-2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

  
MELUR RAMAKRISHNAIAH  
PRIMARY EXAMINER

***Allowable Subject Matter***

1. The following is an examiner's statement of reasons for allowance: The present invention is directed to supporting interoperability between TTY devices. In particular, the present invention is directed to supporting interoperability between TTY devices designed for use in communication with otherwise incompatible standards.

The prior art in combination or alone fails to teach or suggest these elements of independent claims 1, 14, 17, 27, 30, and 40 in combination with other elements. For example independent claim 1 has claim limitations such as detecting tones comprising a first TTY character, the tones generated by a first TTY device according to a first TTY protocol, determining whether the duration of the detected tones express a TTY protocol that is incompatible with a TTY protocol used by a receiving second TTY device, and in response to determining that the second TTY device uses a second TTY protocol that is incompatible with the first TTY device, describing a duration of the detected TTY tones in a format that is compatible with the second TTY protocol. Independent claim 14 has claim limitations such as means for receiving a first selected character and for generating a first sequence of tones encoding the first selected character in accordance with a first TTY protocol, means for receiving a second sequence of tones encoding the first selected character in accordance with a second TTY protocol, wherein duration of at least some tones is different than the duration of at least some tones included in the first sequence of tones, means for expressing each tone within the first sequence of tones as a description including a tone frequency and tone duration, means for determining that the first TTY protocol is incompatible with the second TTY protocol,

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and means for translating the description of the first sequence of tones from the first TTY protocol to the second TTY protocol by altering the tone duration component of the description, wherein the tone frequency is not altered. Independent claim 17 has claim limitations such as detecting a first sequence of tones expressing a first character, determining that a sending device uses a protocol for expressing characters that is different than a protocol for expressing characters that is used by a receiving device, and generating a description of the first sequence of tones, wherein the description of the tones include a description of frequency and a duration of each tone in the first sequence of tones, wherein the frequency and the duration of each tone is expressed according to the protocol used by the receiving device, wherein a duration of at least a first tone is described as being different than detected duration of the at least first tone. Independent claim 27 has claim limitations such as a first TTY device, wherein the first TTY device is operable to transmit and receive characters according to a first TTY protocol, a first communication server, wherein the first TTY device is interconnected to the first communication server, and wherein each tone within a sequence of tones encoding a character and received from the first TTY device is expressed as a description of tone frequency and duration, a second TTY device is operable to transmit and receive characters according to a second TTY protocol, a second communication server, wherein the second TTY device is interconnected to the second communication server, and wherein each tone within a sequence of received tones is provided to the second TTY device at a frequency and duration required by the second TTY protocol, in response to the first communication server determining that the first TTY protocol is

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different than the second TTY protocol, the first communication server describes each tone within the sequence of tones at a frequency and duration required by the second TTY protocol, wherein a duration of at least some of the tones required by the first protocol is different than the duration required by the second protocol, and in response to the second communication server receiving a description of the tones within the sequence of tones according to the first TTY protocol, the second communication server provides the tones to the second TTY device at the frequency and duration required by the second TTY protocol, wherein a duration of at least some of the tones is different than a duration indicated by the received description of the tones. Independent claim 30 has claim limitation such as detecting tones comprising a first TTY character, the tones generated by a first TTY device according to a first TTY protocol, determining that a receiving second TTY device uses a second TTY protocol that is incompatible with the first TTY protocol, and generating a second set of tones comprising the first TTY character, wherein the second set of tones are generated according to the second TTY protocol. Independent claim 40 has claim limitation such as a first TTY device, wherein the first TTY device is operable to transmit and receive characters according to a first TTY protocol, a first communication server, wherein the first TTY device is interconnected to the first communication server, and wherein each tone within a sequence of tones encoding a character that is received from the first TTY device is expressed as a description of tone frequency and duration according to the first TTY protocol, a second TTY device, wherein the second TTY device is operable to transmit and receive characters according to a second TTY protocol, a second communication

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server, wherein the first communication server is interconnected to the second communication server, wherein the second TTY device is interconnected to the second communication server, and wherein each tone within a sequence of received tones is provided to the second TTY device at a frequency and duration according to the second TTY protocol. For the above reasons independent claims 1, 14, 17, 27, 30, 40 and their dependent claims 2-13, 15-16, 18-26, 28-29, 31-39, 41-42 are allowable.

1. Claims 1-42 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

--(WO 97/05732) to Taskett discloses a method and apparatus for facilitating a telephone connection between a TT type device used by the hearing impaired and other receptive device (34) such as a telephone, another TT device, etc. The facilitation is accompanied by employing call trunks and a host computer (10) configured to compatibilize the different encoded communications. The host computer (10) is also capable of compatibilizing a caller's TT device to another TT device by running handshake routines and establishing communication protocols.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (703) 305-1461. The examiner can normally be reached on M-F 6:30-4:00; every other F Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703)305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Melur Ramakrishnaiah  
Primary Examiner  
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